

ABSTRACT

Representative embodiments are directed to systems and methods for processing analyzer trace data of a multi-tone signal to more accurately estimate the frequencies and amplitudes of the tones of the multi-tone signal. Specifically, trace data may be processed to determine peak trace points. For each identified peak point, an error minimization algorithm minimizes the sum of differences between a plurality of trace points surrounding the respective peak point and the predicted Fourier transform through a raised-cosine window of a theoretical tone. The result of the minimization algorithm identifies the amplitude and frequency of a tone of the multi-tone signal with an appreciable degree of accuracy.